

# ADVANCING

INSULATION and THERMAL ENVELOPE DESIGNS



Owens Corning

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# PROPINK®

High Performance  
Conditioned Attic System\*  
and High Performance Wall  
concept introduction

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\*PATENT PENDING SYSTEM AND COMPONENTS

# YOUR CHALLENGES



ARE BIGGER THAN JUST INSULATION.....



**MARKET**



**REGULATORY**

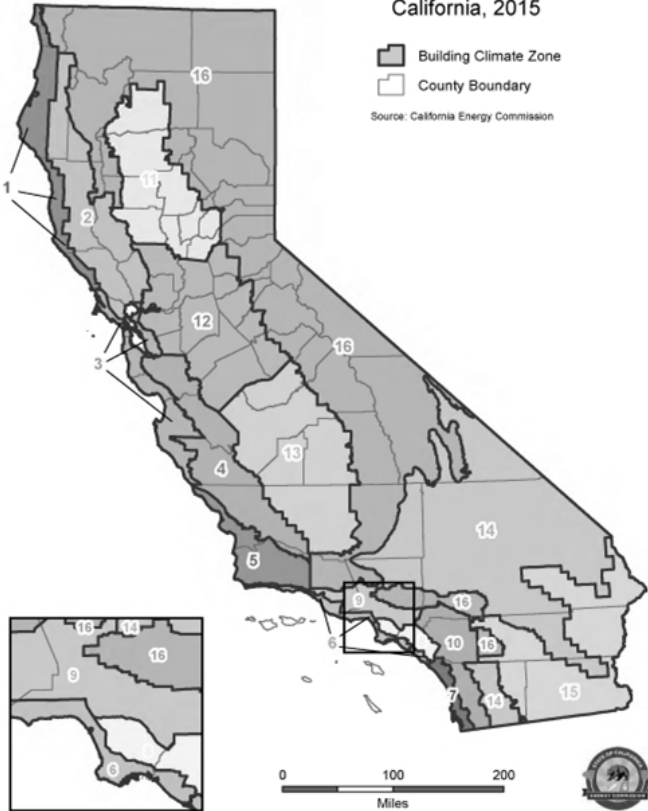


**COMPETITIVE**

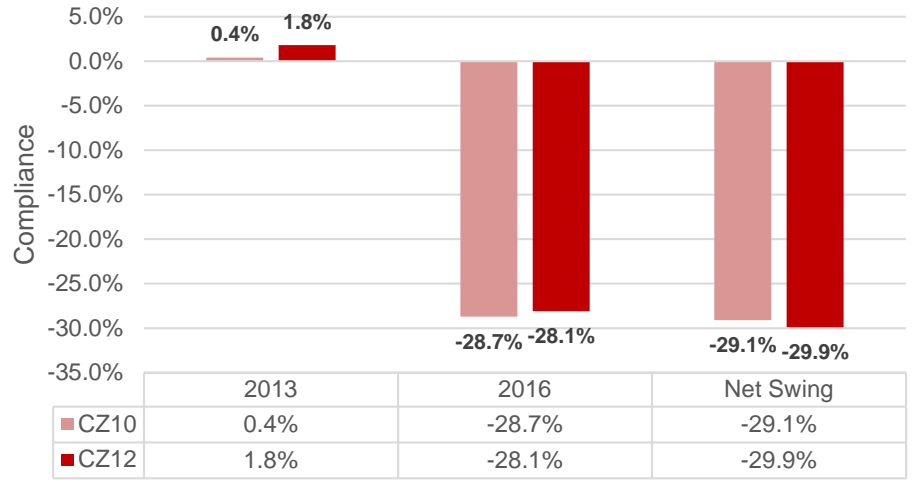


**TECHNICAL**

## Building Climate Zones California, 2015



## 2013 to 2016 T24 Compliance Deficits



*Owens Corning is out in front of this dramatic shift...*

The Owens Corning



# PROPINK®

High Performance  
Conditioned Attic System

System benefits

INNOVATION

EFFICIENCY & PERFORMANCE

DURABILITY

SUSTAINABLE DESIGN

SAFER MATERIALS

VALUE

# INNOVATION



## INSTALLS IN 3 EASY-TO-LEARN STEPS

### Step 1: Seal



### Step 2: Hang and connect



### Step 3: Fill



**Our training helps contractors install the system the right way, for every project.**

# EFFICIENCY



## INDUSTRY-LEADING ENERGY EFFICIENCY

- Meets or exceeds all energy code insulation requirements
- Uniform R-value with zero thermal bridges
- Contributes substantially to Title 24 compliance and lower CAHP scores
- Increases savings on monthly heating and cooling costs\*

**Exceed requirements—and expectations—  
for energy efficiency.**

\*Savings vary. Find out why in the seller's fact sheet on R-values. Higher R-values mean greater insulating power.

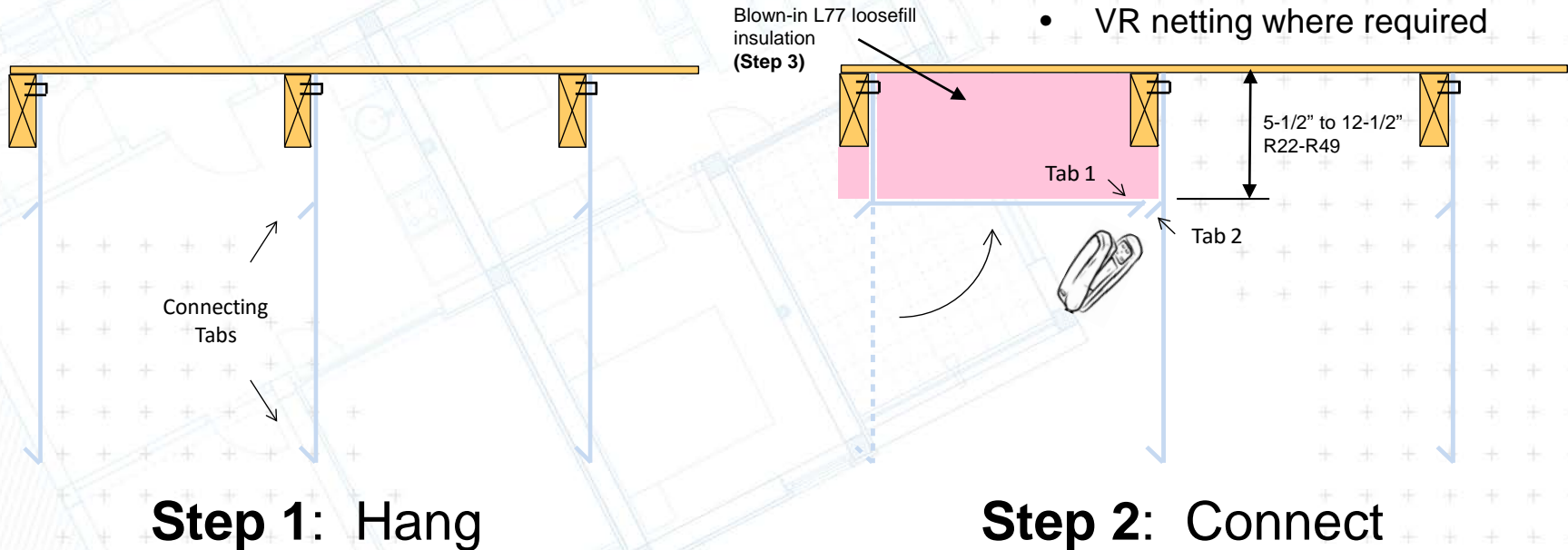


# PERFORMANCE



## BOXED NETTING APPROACH:

- Near-uniform insulation layer
- Insulated truss chords
- Variable R-values
- VR netting where required



# DURABILITY



**Dependable, climate-tested boxed netting system\* enabling a more durable building**



- Non-corrosive
- Non-conductive to moisture retention
- Virtually no settling
- Does not support mold growth or fungus

**Helps you deliver enduring value for homeowners.**

\*Available with and without a vapor retarder



# SUSTAINABLE DESIGN



## PROPINK® LOOSEFILL INSULATION

- Certified average of 55% recycled glass content<sup>1</sup>
  - With 37% post-consumer content<sup>1</sup>
- GREENGUARD Gold Certified for low emissions<sup>2</sup>
- Validated formaldehyde-free<sup>2</sup>
- Owens Corning Loosefill Insulation has received the Cradle to Cradle Products Innovation Institute's Platinum Level Material Health Certificate<sup>3</sup>



**Build responsibly, ready for tomorrow's environmental standards.**

<sup>1</sup> Scientific Certification Systems, for products manufactured in North America.

<sup>2</sup> GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit [ul.com/gg](http://ul.com/gg)

<sup>3</sup> The Material Health Certificate is issued by the Cradle to Cradle Products Innovation Institute.

# SAFER MATERIALS



## FOR INSTALLERS AND HOMEOWNERS

- No complicated Personal Protective Equipment required—dust mask and eye protection are sufficient\*
- No need to quarantine the worksite during installation
- Loosefill insulation is non-combustible
  - Meets high standards of ASTM E136
  - Does not aid in combustion or add heat to ambient fire
- Insulation and netting:
  - <25 flame spread rating
  - <400 smoke developed rating

**Helps keep your jobsite working and delivers peace of mind for homeowners.**

\*Information applies to Loosefill insulation only.

# ADDING VALUE, START TO FINISH



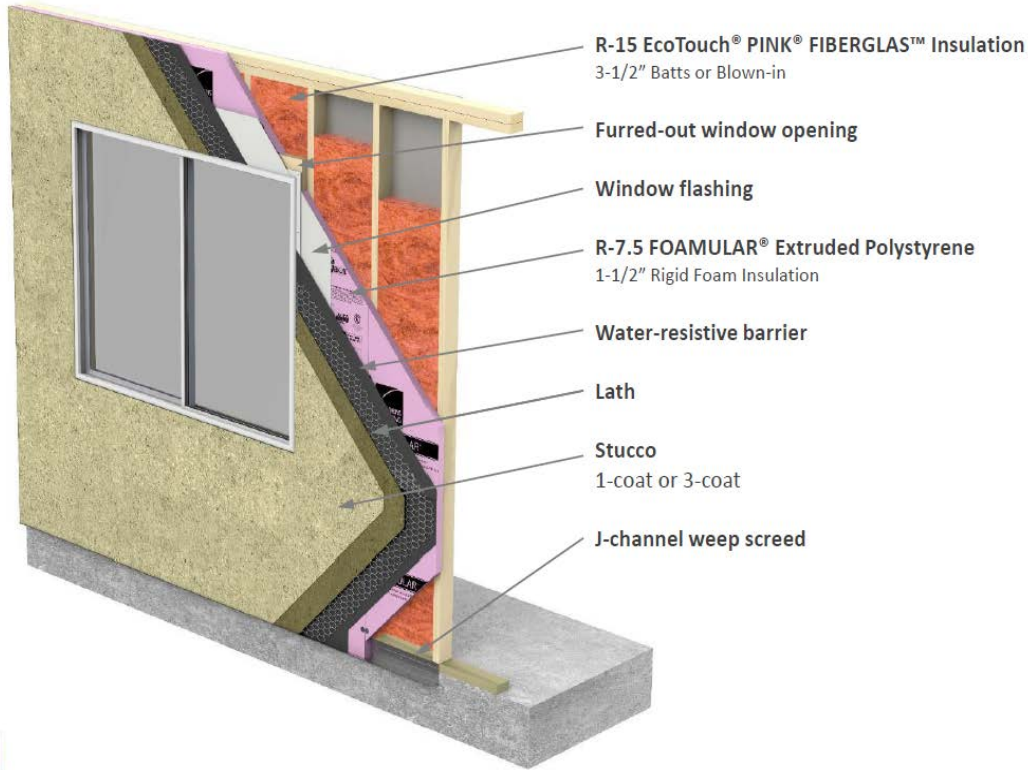
## PROPINK® HIGH PERFORMANCE CONDITIONED ATTIC SYSTEM



- Tailored installation projects quality and craftsmanship
- Innovative system of high-performance components
- Simple & clean installation
- Forward-thinking to meet and exceed code requirements
- Advanced comfort offering for homeowners
- Assembly trade-offs and performance incentives can significantly reduce net installed system costs\*

\*Exact system costs vary based on roof pitch/type, existing performance features, etc. – see Owens Corning representative for additional information.

# HIGH PERFORMANCE WALL CONCEPT



**MEETS 0.051 U-FACTOR**

**MAINTAINS 2x4 FRAMING**

**LOW MOISTURE ABSORPTION**

**COMPRESSIVE STRENGTH ADDS TO DURABILITY**

**LIFETIME FOAMULAR WARRANTY**



\*Foamular: 0.3% water absorption by volume; 1.5 perms; min. 15psi compressive strength (F150)

# HEAR FROM FELLOW BUILDERS...





# THANK YOU.



QUESTIONS?

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# BACK UP SLIDES – ADDITIONAL INFORMATION

# SPF COMPARISON



## SPRAY POLYURETHANE FOAM MAY MEET CODE REQUIREMENTS, BUT...

- Contains chemicals identified as Chemicals of Concern by CA EPA Dept. of Toxic Substances Control
- Requires extensive installer PPE<sup>1</sup>
- Requires jobsite quarantine during installation and for up to 24 hours after
- Can leave gaps and leaks due to shrinkage<sup>2</sup>
- Open cell SPF attracts and retains moisture

## PROPINK® HIGH PERFORMANCE CONDITIONED ATTIC SYSTEM

- Loosefill insulation
  - Validated formaldehyde-free\*
  - Owens Corning Loosefill Insulation has earned a Platinum Level Material Health Certificate<sup>4</sup>
  - Requires minimal PPE
- Less expensive to install
  - SPF can cost 3–4x more in materials alone<sup>5</sup>
- No downtime for other jobsite trades during installation, improving build-cycle time
- Delivers high performance and comfort
- Clean and tailored finish

<sup>1</sup> "Spray Polyurethane Foam Product Types." U.S. EPA. <<https://www.epa.gov/saferchoice/spray-polyurethane-foam-product-types>>.

<sup>2</sup> "Spray Polyurethane Foam Uses in Modern Building Construction Applications and Limitations: The perspective of a system failure investigator." Build Boston, 2010.

<sup>3</sup> <<http://www.masonknowles.com>>.

\*GREENGUARD ENVIRONMENTAL INSTITUTE (GEI)

<sup>4</sup>The Material Health Certificate is issued by the Cradle to Cradle Products Innovation Institute.

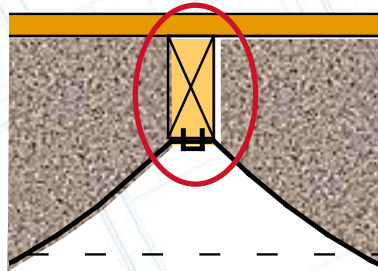
<sup>5</sup>"Guide to Home Insulation." Oct. 2010. U.S. Department of Energy. <[http://energy.gov/sites/prod/files/guide\\_to\\_home\\_insulation.pdf](http://energy.gov/sites/prod/files/guide_to_home_insulation.pdf)>.

# CELLULOSE COMPARISON



CELLULOSE MAY BE INEXPENSIVE,  
BUT...

- Often restricted supply
- May settle over time
- Drape netting leaves thermal breaks



PROPINK® HIGH PERFORMANCE  
CONDITIONED ATTIC SYSTEM

- National network of manufacturing locations ensure unrestricted supply
- Uniform R-value with zero thermal bridges

# VALUE



## ASSEMBLY TRADE-OFFS AND DISCOUNTS REDUCE YOUR INSTALLED COST

Revision Date: 4/4/2016



### HPCA DISCOUNT PRICING TOOL

INSTRUCTIONS: TAN SHADED CELLS REQUIRE INPUT - REMAINDER IS AUTOMATIC.

LOCATION LOOKUPS CURRENTLY COMPLETED FOR AL, AK, AZ, CA, NM, NV ONLY - WILL BE UPDATED STATE-BY-STATE AS USER NEEDS DICTATE

#### Project Name

Project MSA City  
 Project State  
 House SqFt  
 Existing Attic Type  
 Roof SqFt  
 Roof Pitch \_:12  
 Hip Roof  
 O'hagan Vents  
 Generic Rooftop Vents  
 Radiant Barrier  
 Qty of HVAC Systems  
 HVAC type  
 Existing FURNACE efficiency  
 Upgrade cost to 90+  
 Flex duct  
 Whole House fans in current  
 Utility/Other Incentive bump

#### HYPOTHETICAL TWO STORY HOME

Sacramento  
 CA  
 2200  
 Traditional vented  
 1500  
 5  
 N  
 Y  
 N  
 Y  
 1  
 Gas Furnace and AC  
 90+ @ sealed / direct vent  
 0  
 Y  
 N  
 \$600

Location \$ Factor: 1.13

Eave vent qty based on 1300 at 40sqin per  
 Ceiling air seal omit if existing is vented attic  
 Roof Deck SqFt  
 Additional Hip Deck SqFt  
 Qty based on 1300 and 86sqin per  
 Qty based on 1300 and 60sqin per

Material	Deducts	Labor
0 Eave Deduct	\$0.00	Deduct \$0.00
Caulk/Foam	-\$30.00	Deduct -\$90.00
1620 RB Deduct	-\$162.00	
0 RB Deduct	\$0.00	
8.372093 OV Deduct	-\$293.02	Deduct -\$32.16
0 RV Deduct	\$0.00	Deduct \$0.00

HVAC Ton Reduction 0.5

Flex Duct Sqft Est. 500

WHF Sqft base 0

HVAC Deduct	-\$328.64	
FLEX Deduct	-\$30.00	
WHF w/labor Deduct	\$0.00	
INCV Deduct	-\$600.00	
Subtotals	-\$1,443.66	-\$122.16

(not including location factor)

TOTAL LOCATION BASED-ESTIMATED HPCA ASSEMBLY SAVINGS =

**-\$1,769.38**

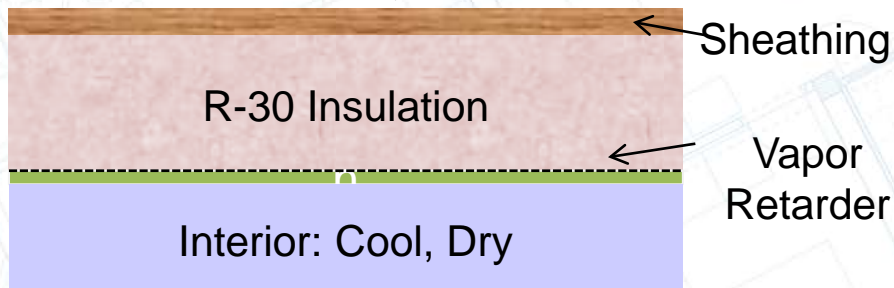
Represents expected discount off of HPCA installed cost

# MOISTURE CONTROL



## VAPOR RETARDER

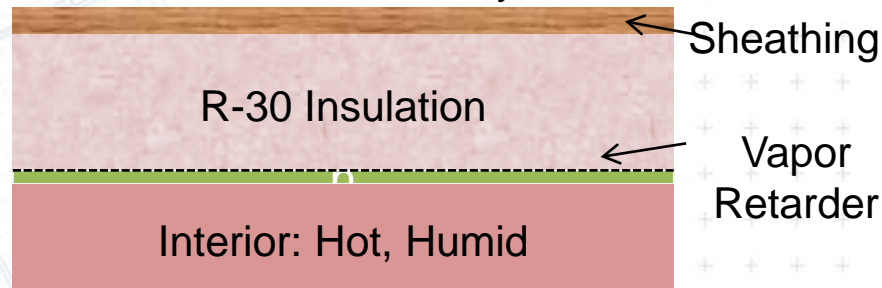
Exterior: Hot, Humid



### Scenario 1: Summer Days

- With sufficient perms, inward drying possible
- No accumulation of moisture

Exterior: Cold, Dry



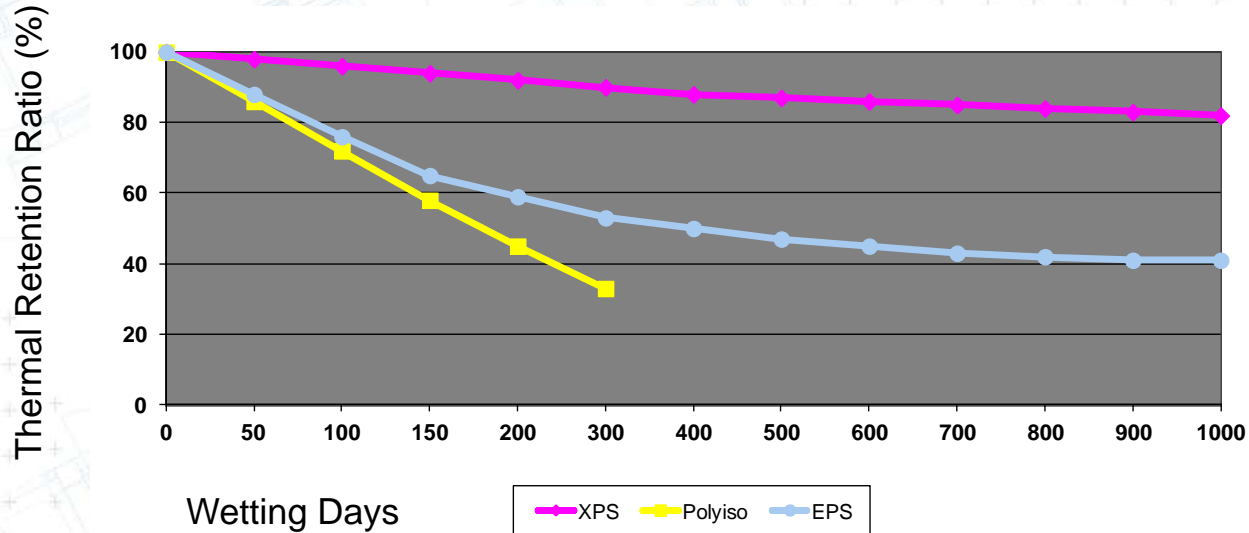
### Scenario 2: Winter Days

- Vapor retarder prevents moisture from getting to the roof deck
- Thus, no condensation

# THE BENEFIT OF CLOSED CELL: EXTREMELY LOW WATER ABSORPTION ALLOWS XPS TO MAINTAIN R-VALUE



**Water is an excellent conductor of energy.  
As water is absorbed into insulation, R-value is lost.**



**Unlike Polyiso and EPS, XPS is highly water repellent, which allows it to maintain majority of R-value even after prolonged exposure**